

ORIGINAL

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of)
)
Amendment of Section 73.622(b))
Digital Television Table of Allotments)
(Yuma, Arizona))

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

TO: The Media Bureau

PETITION FOR RULE MAKING

Arizona Western College ("AWC"), by its attorneys and pursuant to Section 1.401 of the Commission's rules, hereby petitions the Commission to amend the Digital Television Table of Allotments, 47 C.F.R. § 73.622(b), to add reserved noncommercial Channel 24* at Yuma, Arizona, as that community's first noncommercial digital television service.

Background

AWC is an accredited community college which has its main campus about five miles east of the city of Yuma. AWC serves more than 7,000 students from Yuma and La Paz Counties, which together cover about 10,000 square miles. In addition to its main campus, AWC has satellite campuses in Parker (the AWC La Paz Center), San Luis and Somerton, Arizona. It also operates a Community Education Center in Yuma.

AWC offers classes and other educational services at over 40 locations throughout Yuma and La Paz counties. Its primary mission is to provide educational, career and lifelong learning opportunities to enhance the lives of people living in Yuma and La Paz counties. Also located on the AWC campus is a satellite campus of Northern Arizona University, which offers a variety of four year and post graduate programs.

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AWC currently provides programming on two cable television channels, including numerous telecourses produced by AWC and PBS, general information about enrolling at AWC, announcements concerning College activities, and coverage of College sports and cultural events. However, the cable channels do not reach a substantial percentage of AWC's students and residents of Yuma and La Paz Counties. The AWC Governing Board has determined that to help implement AWC's long-term strategic plan, obtaining a noncommercial educational television channel will allow AWC to enhance educational programming to all residents and particularly those who lack cable television service.

The AWC Vision 2006 is a future projection of how the College plans to enhance the lives of the residents of Yuma and La Paz counties. Part of Vision 2006 includes the utilization of technically advanced, state-of-the art, world-wide alternative distance learning partnerships, including traditional instruction, television, video and Internet to provide career, technical or transfer classes at accessible learning centers throughout AWC's service area. AWC plans to use the proposed new DTV allotment to provide educational and informational services to residents as part of a partnership with the City and County of Yuma.

In addition to its current cable television programming and the proposed new noncommercial digital television allotment, AWC is the licensee of noncommercial educational FM station KAWC-FM, and AM station KAWC. These stations provide noncommercial educational radio service to Yuma and surrounding communities. AWC, with its cable and radio services, and the proposed noncommercial television service, will use its media arts degree program as a public voice for southwest Arizona.

Discussion

The City of Yuma is the largest community in Yuma County. Based on 2000 Census data, the City has a population of 77,515; the County's population is 160,026. Since 1990, the

City's population grew 41.1%, and the County's population 49.7%.¹ During the winter the County's population increases by about 80,000 as winter visitors make it their temporary residence.² Agriculture, tourism, and two military bases (the Marine Corps Air Station and the Yuma Proving Ground) are the principal industries in Yuma County. Agriculture alone is a multi-billion dollar per year business, making it the most productive in the State.³ (Most of the lettuce consumed in the U.S. is grown in Yuma County).

Yuma presently has two commercial digital television allotments, Channels 16 and 41.⁴ The allotment of reserved noncommercial Channel 24* at Yuma would provide the City and County with their first noncommercial television service. As noted in the attached Engineering Exhibit, based on 2000 U.S. Census data and the proposed reference coordinates, 321,719 persons would receive a predicted 41 dBu F(50, 90) noise limited service.

The Engineering Exhibit further demonstrates that a Channel 24* DTV allotment at Yuma complies fully with the minimum distance separation requirements of Section 73.623(d)(2) of the Commission's Rules for allotments not included in the initial DTV Table of Allotments. The reference coordinates are 27.5 kilometers from the United States/Mexican border. (As noted in the Engineering Exhibit, there is an anomaly in Table A of the DTV Memorandum of Understanding with Mexico which requires protection of NTSC stations which are 14 and 15 channels above a proposed DTV allotment. However, DTV channels are not, in actuality, subject to taboo interference from stations 14 or 15 channels above the DTV channel,

¹ Source: U.S. Census Bureau.

² Source: "Yuma History" at www.co.yuma.az.us/bos/yuma_history.htm.

³ Source: Yuma Convention & Visitors Bureau, www.visityuma.com/Our%20Community.htm.

⁴ Channel 16 was previously a vacant, noncommercial NTSC allotment at Yuma. It was deleted and reallocated as a commercial digital allotment in the Commission's initial DTV Table of Allotments.

and this protection requirement appears to be an error, which the staff of the International Bureau has acknowledged. To the extent required, Mexican coordination of the proposed Channel 24* allotment is requested.)

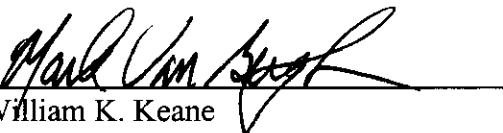
The Engineering Exhibit notes that there are other DTV channels available for allotment at Yuma. Therefore, the additional showings required under Section 73.622(a) of the Rules when there is only one channel technically available in a community, and a party eligible to operate a noncommercial educational station seeks to reserve that channel for noncommercial use, are not applicable to AWC's proposed Channel 24* allotment.

If this proposal is adopted, AWC will promptly apply for authority to construct a new station on Channel 24* at Yuma, and if its application is granted, AWC will promptly construct and operate the proposed station.

Therefore, AWC respectfully requests the Commission to grant this Petition and amend the Digital Television Table of Allotments, Section 73.622(b), to add reserved Channel 24* at Yuma, Arizona.

Respectfully submitted,

ARIZONA WESTERN COLLEGE

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April 8, 2002

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**ENGINEERING EXHIBIT
IN SUPPORT OF A
PETITION FOR RULE MAKING TO MODIFY
THE DTV TABLE OF ALLOTMENTS
ARIZONA WESTERN COLLEGE
YUMA, ARIZONA
CH *24 540 KW 490 METERS**

ENGINEERING STATEMENT

INTRODUCTION

The Engineering Exhibit, of which this statement is part, has been prepared on behalf of Arizona Western College (herein Arizona Western), in support of a petition for rule making to modify the DTV Table of Allotments in Section 73.622(b) of the Federal Communications Commission (FCC) Rules. Arizona Western proposes the allotment of a new noncommercial DTV allotment on channel 24 at Yuma, Arizona, as Yuma's first local noncommercial DTV station and third local DTV station. The requested DTV allotment can be made in full conformance with the FCC Rules.

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Engineering Statement
Arizona Western College
Yuma, Arizona

Page 2

PROPOSED ALLOTMENT

Arizona Western requests that the DTV Table of Allotments in Section 73.622(b) of the FCC Rules be amended to reflect the allotment of DTV channel 24 at Yuma, Arizona. Furthermore, that the following reference facilities be employed for the DTV channel 24 allotment at Yuma.

Latitude: 32° 56' 57"

Longitude: 114° 36' 46" (NAD 27)

Channel: *24

Maximum ERP: 540 kW

Antenna radiation center 490 meters (HAAT)/667 meters AMSL

The requested DTV channel 24 allotment reference facilities comply with the maximum power and antenna height provision of Section 73.622(f)(8)(i) of the FCC Rules.

PRINCIPAL COMMUNITY COVERAGE

The proposed allotment of DTV channel 24 at Yuma, complies with the principal community coverage requirements of Section 73.625(a) of the FCC Rules. The DTV principal community contour for the proposed DTV channel 24

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Engineering Statement
Arizona Western College
Yuma, Arizona

Page 3

allotment at Yuma, is the 48 dBu F(50,90) contour. Figure 1 of this exhibit is a map comprising portions of the United States Geological Survey Arizona and California, 1:1,000,000 scale state maps showing that based on the proposed DTV channel 24 allotment facilities and reference coordinates, all of Yuma, Arizona, lies well within the predicted principal community coverage contour.

ALLOCATION CONSTRAINTS

The requested allocation of DTV channel 24 at Yuma, Arizona, complies fully with the separation requirements of Section 73.623(d)(2) of the FCC Rules. Additionally, the proposed allotment also complies with the provisions of the United States/ Mexican DTV Memorandum of Understanding¹. The proposed reference coordinates for the channel 24 allotment at Yuma are located 27.5 kilometers from the United States/Mexican common border.

¹ *Memorandum of Understanding Between the Federal Communications Commission of the United States of America and the Secretaria De Comunicaciones Y Transportes of the United Mexican States Related to the Use of the 54-72 MHz, 76-88 MHz, 174-216 MHz and 470-806 MHz Bands for the Digital Television Broadcasting Service Along the Common Border, July 22, 1998.*

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Engineering Statement
Arizona Western College
Yuma, Arizona

Page 4

Figure 2 of this Engineering Exhibit is an allocation study detailing pertinent allocation restrictions on the proposed channel 24 DTV allotment. Facilities for United States NTSC and DTV allotments and assignments were extracted from the FCC Consolidated Database System (CDBS). Mexican NTSC and DTV allotments and assignments were extracted from the DTV memorandum of understanding and the FCC CDBS database.

Based on discussions with FCC International Bureau staff, Table A of the DTV Memorandum of Understanding incorrectly specifies the protection of NTSC stations which are 14 and 15 channels above a proposed DTV station. This is because the mechanism for 14 and 15 channel taboo interference occurs only 14 and 15 channels above the protected NTSC channel. DTV stations are not subject to taboo interference and therefore do not require protection from other stations 14 or 15 channels above the DTV channel. In support of this, it is noted that a condition does not exist in Table 2B of the Memorandum of Understanding, *Interference Criteria for UHF Taboo Channels*, for a proposed DTV station 14 or 15 channels below a NTSC station.

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Engineering Statement
Arizona Western College
Yuma, Arizona

Page 5

Although unnecessary for new DTV allotments, compliance with the *de minimis* interference criteria of Section 73.623(c)(2) of the FCC Rules will also be achieved. An analysis of the proposed DTV channel 24 allotment with respect to existing NTSC and DTV allotments and assignments was conducted employing the methodology described in FCC Office of Engineering Technology (OET) Bulletin No. 69 (Bulletin 69), *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, and using the FCC application processing software computer program which performs Bulletin 69 calculations. Based on the results of that analysis, interference to United States assignments and DTV allotments will be within *de minimis* limits.

A Bulletin 69 analysis was also performed to determine the interference free population served by the proposed DTV channel 24 allotment. The analysis predicts that 231,717 persons will receive digital television service during the transition from the proposed DTV channel 24 allotment reference facility. While the Bulletin 69 analysis is based on 1990 US Census data, an enumeration of the population within the predicted 41 dBu F(50,90) noise limited contour based on the 2000 US Census indicates that 321,719 persons

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Engineering Statement
Arizona Western College
Yuma, Arizona


Page 6

within the United States will potentially receive DTV service from the proposed channel 24 allotment.

Channel 24 is not the only channel that can be allotted to Yuma, Arizona as a new DTV service. Hence, the additional showings required by Section 73.622(a) of the FCC Rules for a noncommercial entity seeking a new DTV allotment, which is the only available DTV channel in a community, do not apply.

CONCLUSIONS

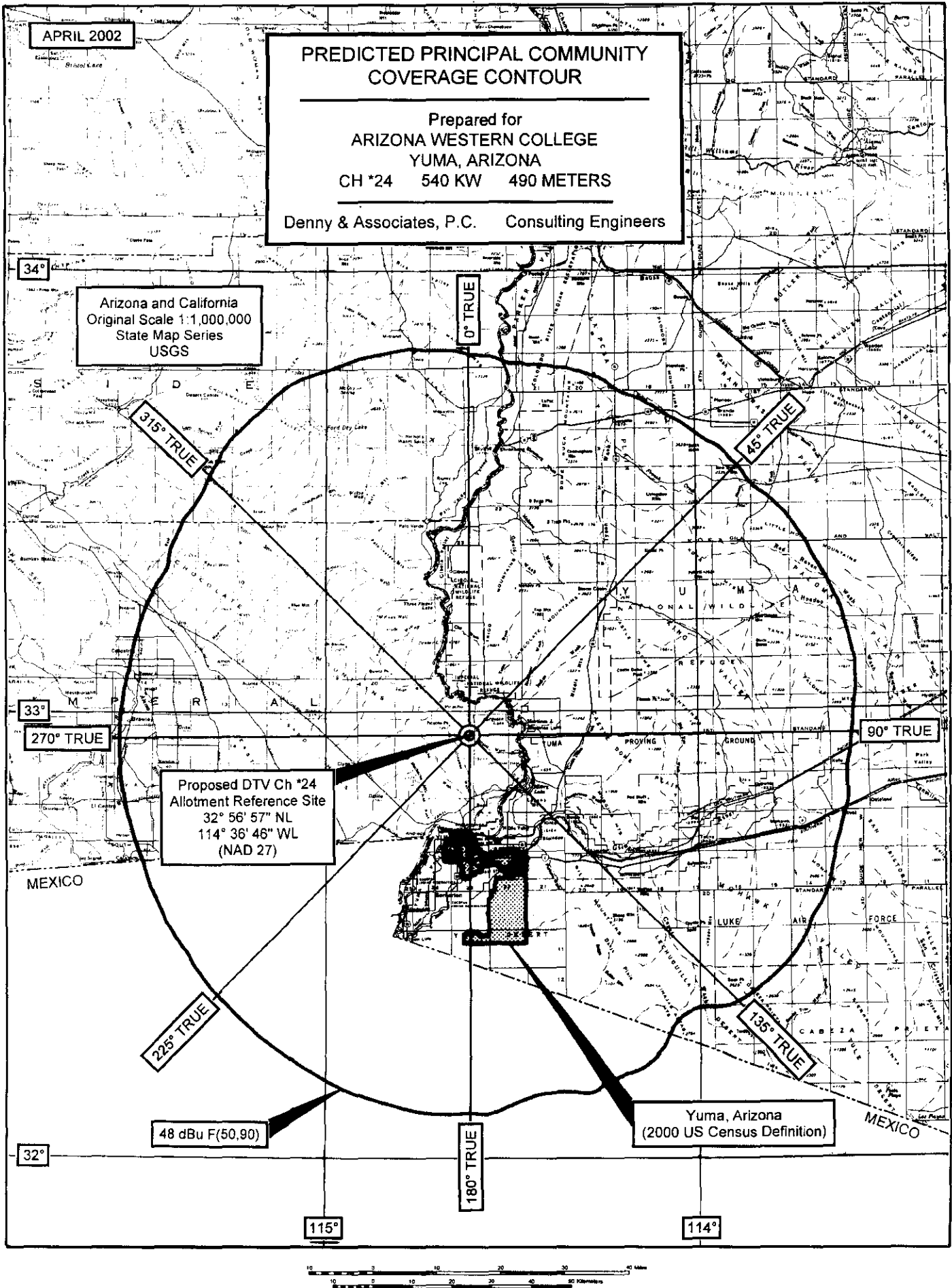
The allotment of DTV channel 24 at Yuma, Arizona, can be made in full conformance with FCC Rules. The allotment of reserved noncommercial DTV channel 24 at Yuma will provide the first noncommercial DTV service to Yuma and the third local DTV service.


Alan R. Rosner, P.E.



April 2, 2002

Figure 1



**ENGINEERING EXHIBIT
IN SUPPORT OF A
PETITION FOR RULE MAKING TO MODIFY
THE DTV TABLE OF ALLOTMENTS
ARIZONA WESTERN COLLEGE
YUMA, ARIZONA
CH *24 540 KW 490 METERS**

DTV ALLOCATION STUDY

Reference Coordinates (NAD 27)

32° 56' 57" North Latitude
114° 36' 46" West Longitude

| <u>Channel</u> | <u>Call Sign</u> | <u>City, State/ FCC File Number</u> | <u>Geographic Coordinates</u> | <u>Separation/ Azimuth (km)/(Deg. T)</u> | <u>Required Separation (km)</u> | <u>Clearance (km)</u> |
|----------------|------------------|---|-----------------------------------|--|---|---------------------------|
| 24 | KTVK-DT | Phoenix, AZ BPCDT-19991018ABH | 33° 20' 01" 112° 03' 45" | 241.8 79.2 | 223.7 | 18.1 |
| 24- | KVCR-TV | San Bernardino, CA BLET-19831021KG | 33° 57' 57" 117° 17' 05" | 272.8 295.1 | 244.6 | 28.2 |
| 24 | DTV Allot. | Ensenada, BN | 31° 53' 26" 116° 37' 50" | 223.2 238.0 | 223.0 | 0.2 |
| 25 | DTV Allot. | Mexicala, BN | 32° 36' 41" 115° 29' 39" | 90.7 245.8 | < 32.0 or > 88.0 | 2.7 |
| 26z | Appl. | Brawley, CA BPET-19960920WU | 33° 03' 10" 114° 49' 40" | 23.2 299.9 | < 24.1 or > 96.6 | 0.9 |